



IPW

PATENT
Customer No. 22,852
Attorney Docket No. 09405.0001-00000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Heng-Chuan WANG et al.)
Application No.: 10/762,429) Group Art Unit: 1651
Filed: January 21, 2004) Examiner: Not Yet Assigned
For: NOVEL BIOLOGICAL) Confirmation No.: 5189
FLOCCULANTS AND)
PRODUCTION METHODS)
)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents listed on the attached Form PTO 1449. This Information Disclosure Statement is being filed, to the undersigned's knowledge, before the mailing date of a first Office Action on the merits for the above-referenced application.

Copies of the listed documents are attached. Applicants respectfully request that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

Five of the listed documents are not in English. However, English translations of the abstracts of each of these documents are provided.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed

documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicants determine that the cited documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the office the relevant facts and law regarding the appropriate status of such documents.


Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

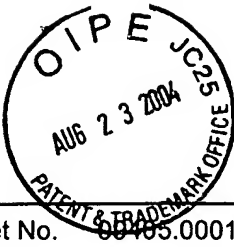
Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: August 20, 2004

By: 

Anna Tsang
Reg. No. 48,003



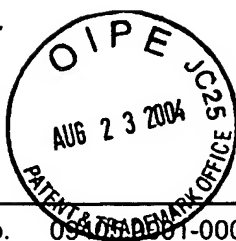
INFORMATION DISCLOSURE CITATION

Atty. Docket No.	00405.0001-00000	Appln. No.	10/693,207
Applicant	Heng-Chuan WANG et al.		
Filing Date	January 21, 2004	Group:	1651

U.S. PATENT DOCUMENTS							
Examiner Initial*		Document Number	Issue Date	Name	Class	Sub Class	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS							
		Document Number	Publication Date	Country	Class	Sub Class	Translation Yes or No

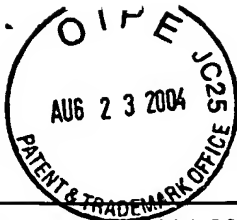
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	Cárdenas et al., 2001, "Synthesis and Applications of Chitosan Mercaptanes as Heavy Metal Retention Agent," Int'l. J. Biological Macromolecules, 28: 167-174.
	Bender et al., July 1994, "Characterization of Metal-Binding Biofloculants Produced by the Cyanobacterial Component of Mixed Microbial Mats," Applied and Environmental Microbiology, 60(7): 2311-2315.
	Dent et al., December 1991, "Effect of Culture Conditions of Flocculant Producing Yeast <i>C. tropicalis</i> on the Flocculating Activity in Chromic Tannery Waste Water," J. of the Biomass Energy Society of China, 10(3-4): 99-110. (translation of abstract provided on page 110)
	Dent et al., December 1991, "Effect of Culture Conditions of Flocculant Producing Yeast <i>C. tropicalis</i> on the Flocculating Activity in Filtrate of Hog Feces," J. of the Biomass Energy Society of China, 10(3-4): 111-124. (translation of abstract provided on page 124)
	Dent, June 1999, "The Flocculation and Microbial Decolorization of Lignin," J. of the Biomass Energy Society of China, 18(1-2): 39-45. (translation of abstract provided on page 45)
	Dent, 1999, "Wastewater Flocculation and COD Removal Rate," Bulletin of National Pingtung University of Science and Technology, 8(1): 9-26. (translation of abstract provided on pages 25-26)
	Dermlin et al., 1999, "Screening and characterization of biofloculant produced by isolated <i>Klebsiella</i> sp.," Appl. Microbiol. Biotechnol., 52: 698-703.
	Fujita et al., 2000, "Characterization of a Biofloculant Produced by <i>Citrobacter</i> sp. TKF04 from Acetic and Propionic Acids," J. Bioscience and Bioengineering, 89(1): 40-46.
	Ganjidoust et al., 1997, "Effect of Synthetic and Natural Coagulant on Lignin Removal from Pulp and Paper Wastewater," Wat. Sci. Tech., 35(2-3): 291-296.
	Gassenschmidt et al., 1995, "Isolation and Characterization of a Flocculating Protein from <i>Moringa oleifera</i> Lam," Biochimica et Biophysica Acta, 1243: 477-481.
	Huang et al., 1990, "Studies on Culture Conditions for Production of Flocculant by Bacterial Strain S-4K," Rept. Taiwan Sugar Res. Inst., 129: 11-19. (translation of abstract provided on pages 11-12)
	Kunioka 1995, "Biosynthesis of Poly (γ-glutamic acid) from L-Glutamine, Citric Acid and Ammonium Sulfate in <i>Bacillus subtilis</i> IFO3335," Appl. Microbiol. Biotechnol. 44: 501-506.



INFORMATION DISCLOSURE CITATION

Atty. Docket No.	094052001-00000	Appln. No.	10/693,207
Applicant	Heng-Chuan WANG et al.		
Filing Date	January 21, 2004	Group:	1651

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	Kurane et al., 1995, "Chemical Structure of Lipid Bioflocculant Produced by <i>Rhodococcus erythropolis</i> ," Biosci. Biotech. Biochem., 59(9): 1652-1656.
	Kurane, 1997, "Environmentally Friendly Products and Processes for the 21 st Century," from <u>Global Environmental Biotechnology</u> , D.L. Wise (Ed.), published by Elsevier Science B V, pp. 759-769.
	Kurane et al., 1991, "Microbial Flocculation of Waste Liquids and Oil Emulsion by a Bioflocculant from <i>Alcaligenes latus</i> ," Agric. Biol. Chem., 55(4): 1127-1129.
	Kurane et al., 1994, "Production of a Bioflocculant by Mixed Culture," Biosci. Biotech. Biochem., 58(9): 1589-1594.
	Kurane et al., 1994, "Production of a Bioflocculant by <i>Rhodococcus erythropolis</i> S-1 Grown on Alcohols," Biosci. Biotech. Biochem., 58(2): 428-429.
	Kurane et al., 1994, "Purification and Characterization of Lipid Bioflocculant Produced by <i>Rhodococcus erythropolis</i> ," Biosci. Biotech. Biochem., 58(11): 1977-1982.
	Kwon et al., December 1996, "A Novel Flocculant Biopolymer Produced by <i>Pestalotiopsis</i> sp. KCTC 8637P," Biotechnology Letters, 18(2): 1459-1464.
	Lee et al., January 1995, "Microbial Flocculant from <i>Arcuadendron</i> sp. TS-49," Biotechnology Letters, 17(1): 95-100.
	Mortimer, 1991, "Synthetic Polyelectrolytes - A Review," Polymer International, 25(1): 29-41.
	Nam et al., 1996, "Bioflocculant Produced by <i>Aspergillus</i> sp. JS-42," Biosci. Biotech. Biochem., 60(2): 325-327.
	Ndabigengesere et al., 1998, "Quality of Water Treated by Coagulation Using <i>Moringa oleifera</i> Seeds," Wat. Res., 32(3): 781-791.
	Rosenberg, 1986, "Microbial Surfactants," CRC Critical Reviews in Biotechnology, 3(2): 109-132.
	Salehizadeh et al., 2001, "Extracellular Biopolymeric Flocculants: Recent Trends and Biotechnological Importance," Biotechnology Advances, 19: 371-385.
	Salehizadeh et al., 2000, "Some Investigations on Bioflocculant Producing Bacteria," Biochemical Engineering Journal, 5: 39-44.
	Shih et al., 2001, "The Production of Poly-(γ-Glutamic Acid) from Microorganisms and its Various Applications," Bioresource Technology, 79: 207-225.
	Takeda et al., 1992, "Factors Affecting the Activity of a Protein Bioflocculant Produced by <i>Nocardia amarae</i> ," Journal of Fermentation and Bioengineering, 74(6): 408-409.
	Thompson et al., 1983, "Nutrient Conditions in Relation to Bacterial Flocculation, Extracellular Polymer Production and Sludge Settlement," Biotechnology Letters, 5(11): 761-766.
	Yokoi et al., June 1997, "Biopolymer Flocculant Produced by an Enterobacter sp." Biotechnology Letters, 19(6): 569-573.
	Yokoi et al., 1996, "Flocculation Properties of Poly-(γ-Glutamic Acid) Produced by <i>Bacillus subtilis</i> ," Journal of Fermentation and Bioengineering, 82(1): 84-87.



OMB No. 0651-0011

INFORMATION DISCLOSURE CITATION

Atty. Docket No.	09405.0001-00000	Appln. No.	10/693,207
Applicant	Heng-Chuan WANG et al.		
Filing Date	January 21, 2004	Group:	1651

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	Yokoi et al., October 1996, "Flocculation Properties of Xanthan Produced by <i>Xanthomonas campestris</i> ," Biotechnology Techniques, 10(10): 789-792.
	Zhen et al., November 1994, "Screening of Flocculant-Producing Microorganisms and Some Characteristics of Flocculants," Biotechnology Techniques, 8(11): 831-836.

Examiner	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	
Form PTO 1449	Patent and Trademark Office - U.S. Department of Commerce